

What is claimed is:

1 1 In a computer program application, a method of responding to a user request that
2 the application open a data asset, the method comprising:
3 presenting to the user a location interface to receive location information from the
4 user to locate a desired data asset;
5 linking the location interface to a searchable tag database of concept data elements,
6 asset references, and associations, the concept data elements each
7 representing a concept and having a hierarchy specified by concept hierarchy
8 information, the asset references each comprising a storage location identifier
9 for a corresponding one of a plurality of data assets, and the associations each
10 representing a relation between one of the plurality of data assets and one of
11 the plurality of concepts represented by concept data elements;
12 receiving from the user through the location interface a query identifying a concept
13 and a relation;
14 using the tag database to identify a set of data assets each having the relation with
15 the concept; and
16 presenting to the user information identifying the data assets in the set.

1 2 The method of claim 1, further comprising:
2 receiving information from the tag database identifying all concepts and relations
3 that can be searched for during an "open" operation;
4 displaying the tag information to the user through a tag data interface, the tag data
5 interface allowing the user to select tag elements to define a query; and
6 displaying, in response to the query, information identifying data assets satisfying
7 the query.

1 3 The method of claim 2, further comprising:
2 receiving a selection from the user of a desired data asset from among the identified
3 data assets; and
4 returning to the application a file handle for the desired data asset.

- 1 4 The method of claim 1, wherein the set of data assets is identified by finding each
2 asset reference in the tag database having the relation with the concept.
- 1 5 The method of claim 1, wherein the set of data assets is identified by finding each
2 asset reference in the tag database having the relation with the concept and each
3 asset reference in the tag database having the relation with a hierarchical
4 descendent of the concept.
- 1 6 The method of claim 1, wherein:
2 the tag database further comprises a plurality of relation data elements each
3 representing a relation and having a hierarchy specified by relation hierarchy
4 information; and
5 the set of data assets is identified by finding each asset reference in the tag database
6 having the relation with the concept and each asset reference in the tag
7 database having a hierarchical descendent of the relation with the concept.
- 1 7 The method of claim 1, wherein:
2 the query identifying a concept and a relation further identifies a second concept
3 and a second relation; and
4 each data asset in the identified set of data assets having the relation with the
5 concept has the second relation with the second concept.
- 1 8 The method of claim 1, wherein:
2 the tag database further comprises detail associations, each detail association
3 representing a relation between a first and a second concept;
4 the query identifying a concept and a relation further identifies second concept and
5 a second relation, the second concept and second relation representing a
6 detail association; and
7 each data asset in the identified set of data assets has a detail association
8 comprising the second relation between the concept and the second concept.

1 9 A computer program product, tangibly stored on a computer-readable medium, for
2 responding to a user request that a computer program application open a data asset,
3 the program comprising instructions operable to cause a computer to:
4 present to the user a location interface to receive location information from the user
5 to locate a desired data asset;
6 link the location interface to a searchable tag database of concept data elements,
7 asset references, and associations, the concept data elements each
8 representing a concept and having a hierarchy specified by concept hierarchy
9 information, the asset references each comprising a storage location identifier
10 for a corresponding one of a plurality of data assets, and the associations each
11 representing a relation between one of the plurality of data assets and one of
12 the plurality of concepts represented by concept data elements;
13 receive from the user through the location interface a query identifying a concept
14 and a relation;
15 use the tag database to identify a set of data assets each having the relation with the
16 concept; and
17 present to the user information identifying the data assets in the set.

1 10 The program product of claim 9, further comprising instructions to:
2 receive information from the tag database identifying all concepts and relations that
3 can be searched for during an "open" operation;
4 display the tag information to the user through a tag data interface, the tag data
5 interface allowing the user to select tag elements to define a query; and
6 display, in response to the query, information identifying data assets satisfying the
7 query.

1 11 The program product of claim 10, further comprising instructions to:
2 receive a selection from the user of a desired data asset from among the identified
3 data assets; and
4 return to the application a file handle for the desired data asset.

1 12 The program product of claim 9, wherein the set of data assets is identified by
2 finding each asset reference in the tag database having the relation with the
3 concept.

1 13 The program product of claim 9, wherein the set of data assets is identified by
2 finding each asset reference in the tag database having the relation with the concept
3 and each asset reference in the tag database having the relation with a hierarchical
4 descendent of the concept.

1 14 The program product of claim 9, wherein:
2 the tag database further comprises relation data elements each representing a
3 relation and having a hierarchy specified by relation hierarchy information;
4 and
5 the set of data assets is identified by finding each asset reference in the tag database
6 having the relation with the concept and each asset reference in the tag
7 database having a hierarchical descendent of the relation with the concept

1 15 In a computer program application, a method of responding to a user request that
2 the application save a data asset, the method comprising:
3 presenting to the user a storage interface to receive location information from the
4 user to identify a storage location identifier for a data asset to be saved;
5 linking the storage interface to a searchable tag database of concept data elements,
6 asset references, and associations, the concept data elements each
7 representing a concept and having a hierarchy specified by concept hierarchy
8 information, the asset references each comprising a storage location identifier
9 for a corresponding one of a plurality of data assets, and the associations each
10 representing a relation between one of the plurality of data assets and one of
11 the plurality of concepts represented by concept data elements;
12 receiving from the user through the storage interface the location information for
13 the data asset to be saved and a selection identifying a concept and a relation
14 between the concept and the data asset to be saved; and

15 using the tag database to store an asset reference for the data asset to be saved and
16 to create an association representing the identified relation between the data
17 asset to be saved and the identified concept.

1 16 The method of claim 15, further comprising:
2 receiving information from the tag database identifying all concepts and relations
3 that can be selected during a “save” operation;
4 displaying the tag information to the user through a tag data interface, the tag data
5 interface allowing the user to select tag elements to identify associations for
6 data assets to be saved.

1 17 The method of claim 15, further comprising:
2 presenting to the user a tag creation interface to receive information from a user to
3 define a new concept; and
4 using the tag database to store a new concept data element representing the new
5 concept.

1 18 The method of claim 17, further comprising:
2 receiving from the user through the tag creation interface hierarchy information
3 identifying a hierarchical relation between the new concept and the plurality
4 of concepts; and
5 using the tag database to store concept hierarchy information representing the
6 hierarchical relation between the new concept and the concepts represented
7 by the concept data elements in the tag database.

1 19 The method of claim 17, wherein the tag database further comprises a plurality of
2 relation data elements each identifying a relation and having a hierarchy specified
3 by relation hierarchy information, and wherein the method further comprises:
4 presenting to the user a tag creation interface to receive information from a user to
5 define a new relation; and
6 using the tag database to store a new relation data element representing the new
7 relation.

1 20 The method of claim 19, further comprising:
2 receiving from the user through the tag creation interface hierarchy information
3 identifying a hierarchical relation between the new relation and the plurality
4 of relations;
5 using the tag database to store relation hierarchy information representing the
6 hierarchical relation between the new relation and the plurality of relations.

1 21 The method of claim 19, wherein the tag database further comprises detail
2 associations each representing a relation between a first and a second concept, and
3 the method further comprises:
4 receiving from the user through the tag creation interface new detail association
5 information identifying a relation between a first and a second one of the
6 plurality of concepts;
7 using the tag database to store the new detail association information.